

# Biomaterials Science

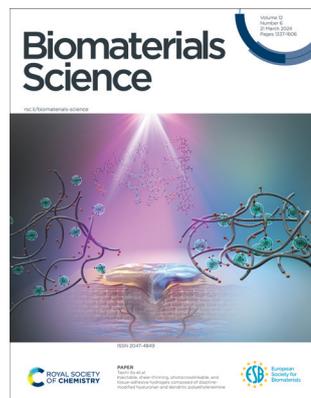
An international high impact journal exploring the underlying science behind the function, interactions and design of biomaterials

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## IN THIS ISSUE

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**Cover**  
See Taichi Ito *et al.*,  
pp. 1454–1464.

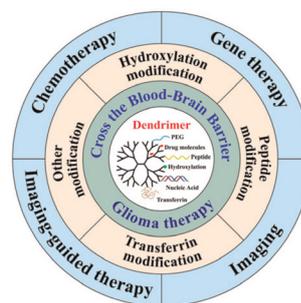
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*Biomater. Sci.*, 2024, **12**,  
1454.

## REVIEWS

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### Blood–brain barrier-crossing dendrimers for glioma theranostics

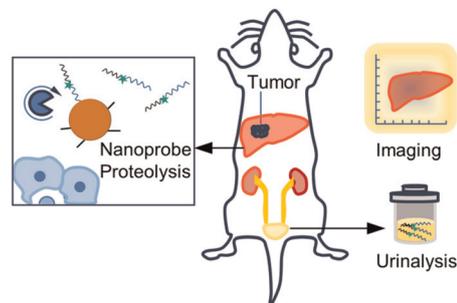
Jinxia Wang, Zhiqiang Wang, Guixiang Zhang,\*  
João Rodrigues, Helena Tomás, Xiangyang Shi\* and  
Mingwu Shen\*



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### Renal-clearable nanoprobe for optical imaging and early diagnosis of diseases

Wei An, Weiping Xu, Ya Zhou, Changwen Huang,  
Weiguo Huang\* and Jianguo Huang\*



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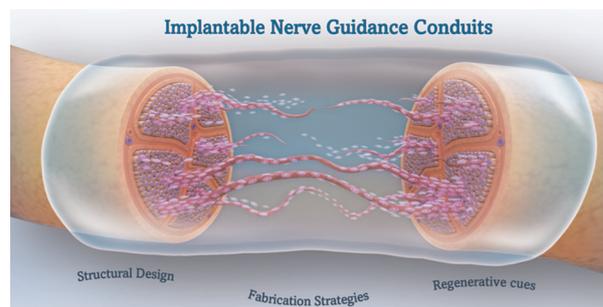
Fundamental questions  
Elemental answers

## REVIEWS

1371

### Beyond the limiting gap length: peripheral nerve regeneration through implantable nerve guidance conduits

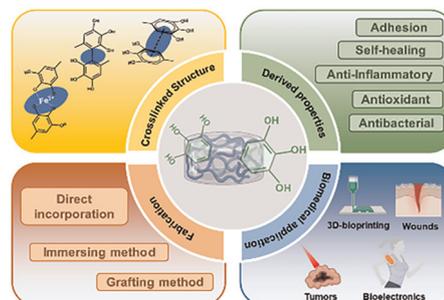
Eugenio Redolfi Riva,\* Melis Özkan, Estefania Contreras, Sujeet Pawar, Ciro Zinno, Enrique Escarda-Castro, Jaehyeon Kim, Paul Wieringa, Francesco Stellacci, Silvestro Micera\* and Xavier Navarro\*



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### Gallic acid: design of a pyrogallol-containing hydrogel and its biomedical applications

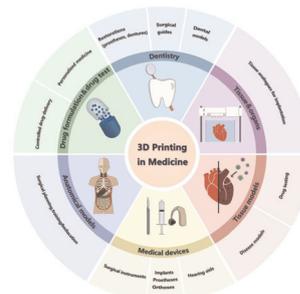
Wu Weian, Ye Yunxin, Wang Ziyang, Jiang Qianzhou\* and Guo Lvhua\*



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Guobin Huang, Yuanyuan Zhao, Dong Chen, Lai Wei, Zhiping Hu, Junbo Li, Xi Zhou, Bo Yang\* and Zhishui Chen\*

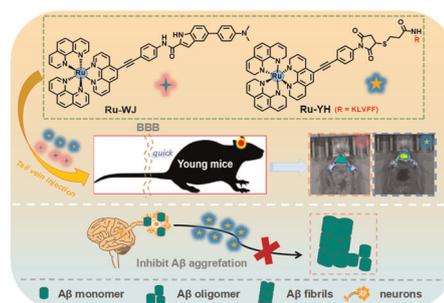


## COMMUNICATION

1449

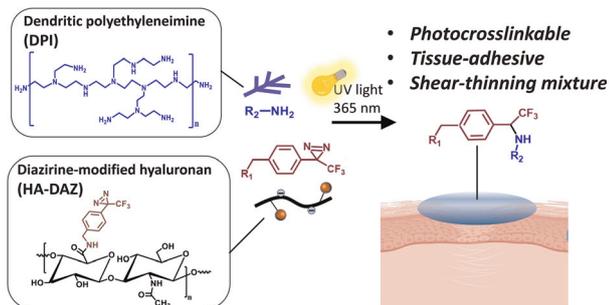
### Development of Ru-polypyridyl complexes for real-time monitoring of A $\beta$ oligomers and inhibition of A $\beta$ fibril formation

Xian Chen, Jiaoyang Wang, Zhenhuo Mo, Lu Han, Kaiqing Cheng, Cheng Xie, Genyan Liu,\* Lijun Jiang,\* Kai Wang\* and Jie Pan\*



## PAPERS

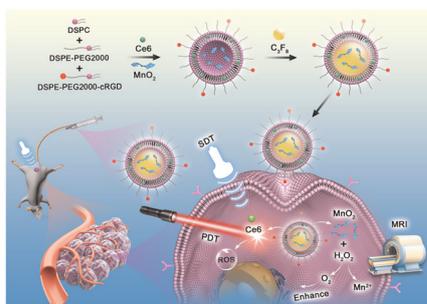
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### Injectable, shear-thinning, photocrosslinkable, and tissue-adhesive hydrogels composed of diazirine-modified hyaluronan and dendritic polyethyleneimine

Arvind K. Singh Chandel, Athira Sreedevi Madhavikutty, Saki Okada, Zhang Qiming, Natsuko F. Inagaki, Seiichi Ohta and Taichi Ito\*

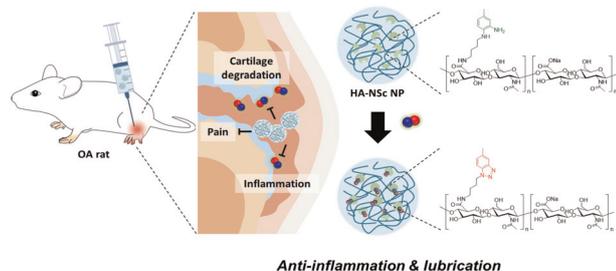
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### MnO<sub>2</sub>/Ce6 microbubble-mediated hypoxia modulation for enhancing sono-photodynamic therapy against triple negative breast cancer

Ping Li, Xiao Tan, Qing Dan, Azhen Hu, Zhengming Hu, Xiaoting Yang, Jianhua Bai, Xiaoyu Chen, Bowei Li, Guanxun Cheng, Li Liu,\* Yun Chen,\* Desheng Sun,\* Xintao Shuai\* and Tingting Zheng\*

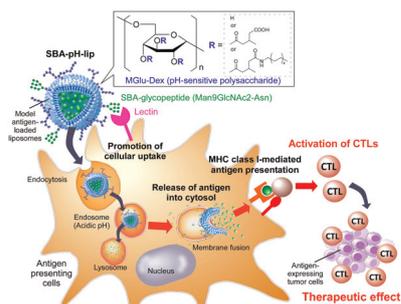
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### Nitric oxide-scavenging hyaluronic acid nanoparticles for osteoarthritis treatment

Yunyoung Nah, Sivasangu Sobha, Gurusamy Saravanakumar, Byung-Yoon Kang, Joo-Byoung Yoon and Won Jong Kim\*

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### Preparation of glycopeptide-modified pH-sensitive liposomes for promoting antigen cross-presentation and induction of antigen-specific cellular immunity

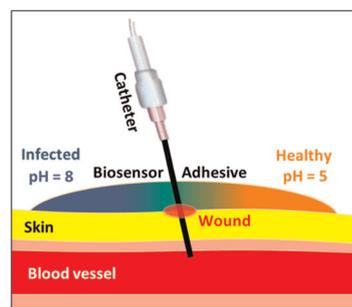
Eiji Yuba\* and Rajesh Kumar Gupta\*



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### Color changing bioadhesive barrier for peripherally inserted central catheters

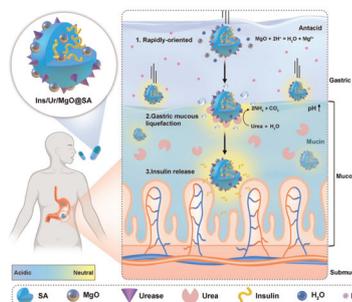
Ivan Djordjevic, Elizabeth Ellis, Juhi Singh, Naziruddin Ali, Edgar M. Pena, Ravisankar Rajarethinam, Lakshmanan Manikandan, Jason Goh, Sierin Lim and Terry Steele\*



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### Urease catalyzed high-density sodium alginate microspheres enable high oral bioavailability of macromolecular drugs

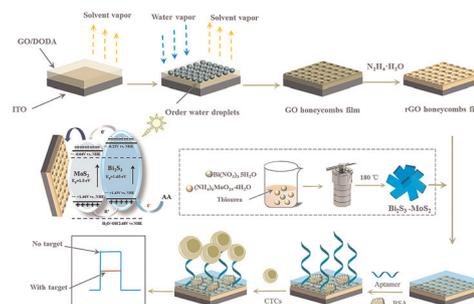
Yicheng Jiang, Li Mi, Xiang Xu, Adric Ru Khiing Hii, Zhenghong Wu\* and Xiaole Qi\*



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### A photoelectrochemical cytosensor based on a Bi<sub>2</sub>S<sub>3</sub>-MoS<sub>2</sub> heterojunction-modified reduced oxide graphene honeycomb film for sensitive detection of circulating tumor cells

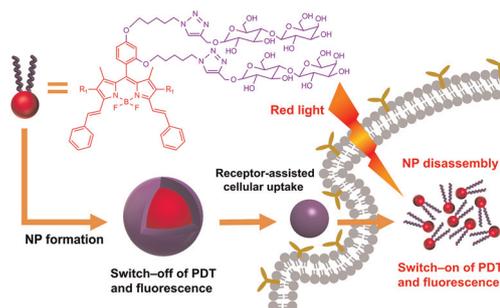
Yuhong Guo, Binbin Guo, Zhaopeng Liu, Jian Li, Liming Gao,\* Hong Jiang\* and Jidong Wang\*



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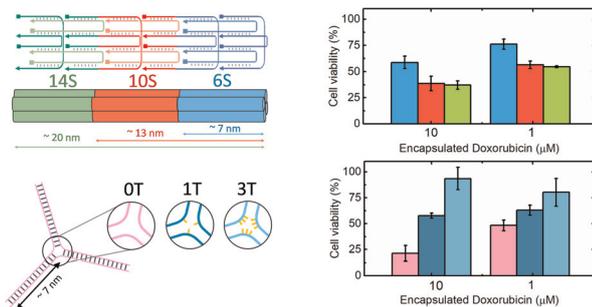
### Red fluorescent BODIPY-based nanoparticles for targeted cancer imaging-guided photodynamic therapy

Chanwoo Kim, Duy Khuong Mai, Won-Jin Kim, Isabel Wen Badon, Jinwoong Jo, Dongho Kang, Seok-Jun Kim,\* Ho-Joong Kim\* and Jaesung Yang\*



## PAPERS

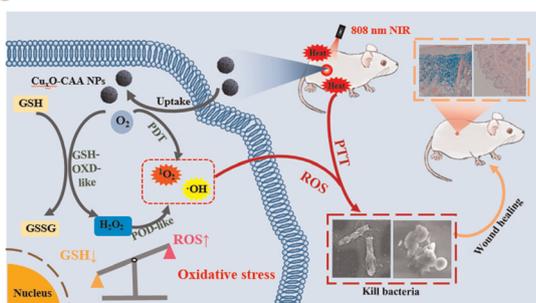
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### Assessing the influence of small structural modifications in simple DNA-based nanostructures on their role as drug nanocarriers

Alejandro Postigo, Pablo Martínez-Vicente, Kevin N. Baumann, Jesús del Barrio and Silvia Hernández-Ainsa\*

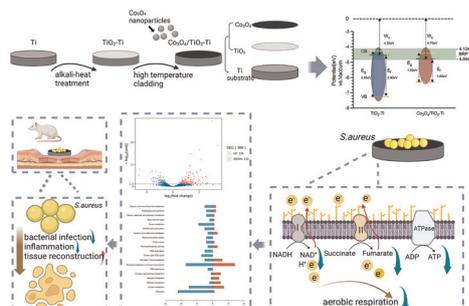
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### Biocompatible *N*-carbazoleacetic acid decorated Cu<sub>x</sub>O nanoparticles as self-cascading platforms for synergistic single near-infrared triggered phototherapy treating microbial infections

Xiao-Chan Yang, Yong Ding, Sheng-Nan Song, Wen-Hui Wang, Shan Huang, Xue-Yao Pang, Bo Li, Ya-Ya Yu, Ya-Mu Xia\* and Wei-Wei Gao\*

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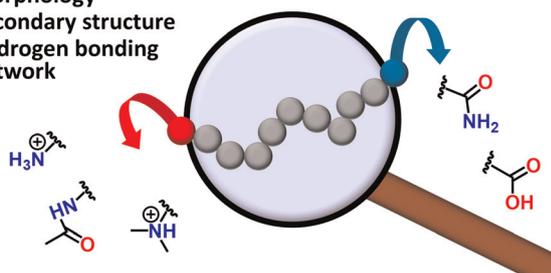


### A self-activating electron transfer antibacterial strategy: Co<sub>3</sub>O<sub>4</sub>/TiO<sub>2</sub> P-N heterojunctions combined with photothermal therapy

Siyuan Chen, Zhe Xie, Yuchen Yang, Nuo Sun, Zhongnong Guo, Miaomiao Li and Chen Wang\*

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- Morphology
- Secondary structure
- Hydrogen bonding network



### Amyloid engineering – how terminal capping modifies morphology and secondary structure of supramolecular peptide aggregates

Manuela Grelich-Mucha, Thomas Bachelart, Vladimir Torbeev, Katarzyna Ożga, Łukasz Berlicki and Joanna Olesiak-Bańska\*



## CORRECTION

1603

**Correction: MnO<sub>2</sub>/Ce6 microbubble-mediated hypoxia modulation for enhancing sono-photodynamic therapy against triple negative breast cancer**

Ping Li, Xiao Tan, Qing Dan, Azhen Hu, Zhengming Hu, Xiaoting Yang, Jianhua Bai, Xiaoyu Chen, Bowei Li, Guanxun Cheng, Li Liu,\* Yun Chen,\* Desheng Sun,\* Xintao Shuai\* and Tingting Zheng\*

